

# Learning in the 21<sup>st</sup> Century

**Prof Dr. Zoraini Wati Abas**

Faculty of Education & Languages  
Open University Malaysia, Kuala Lumpur  
[zoraini@oum.edu.my](mailto:zoraini@oum.edu.my)/[zoraini@gmail.com](mailto:zoraini@gmail.com)

<http://www.facebook.com/zoraini>  
<http://eyeonlearning.blogspot.com>





# Do you own a supercomputer?

- A typical computer today...



Everything's wireless  
Everything's sleek in design  
Everything's integrated  
Everything's with memory  
that is more than you will  
ever need  
Everything's internet-  
ready!

# Outline





# **A GLOBAL VIEW**

# ICT Developments

First  
mainframe  
, WWII

First PCs, late  
70s

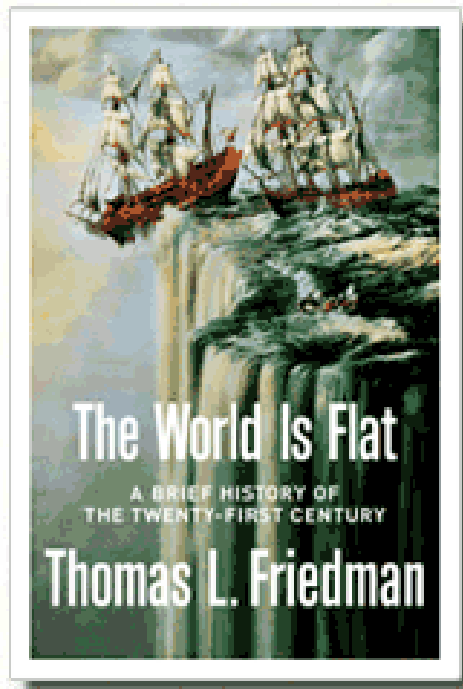
Internet, early  
90s

Internet  
adoption,  
late 90s

Web 2.0,  
2000 -



**Friedman's ten  
"flatteners" in the leveling  
the global playing field:**



Collapse of the Berlin Wall in 1989

Netscape going public in 1985

Workflow software (e.g. PayPal and eBay)

Open sourcing (e.g. Mosaic, Apache, Wikipedia, Linus, Mozilla-Firefox)

Outsourcing (e.g. telephone reception service)

Offshoring (e.g. to China, Vietnam and Mexico)

Supply chaining (e.g. Wal-Mart)

Insourcing (e.g. UPS fixing Toshiba laptops)

Informing (e.g. Google, Yahoo!)

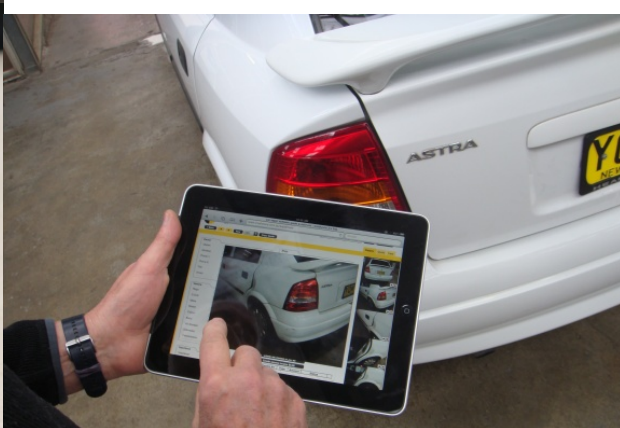
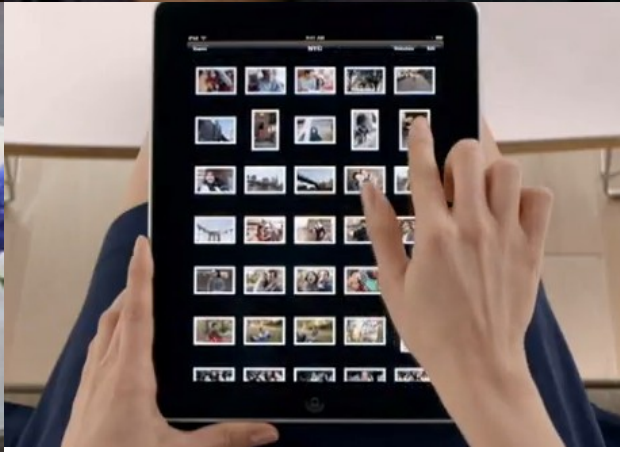
The steroids (e.g. wireless, file sharing, VoIP)



### Did you know?

<http://www.youtube.com/watch?v=6ILQrUrEWe8>

4:46

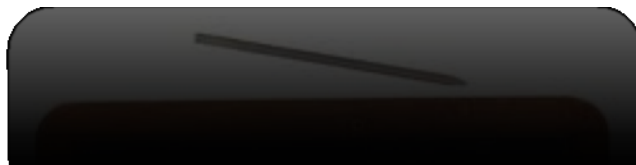




1890

2010

120 years  
apart



## Yesterday



## Today









# **21<sup>ST</sup> CENTURY LEARNING**



# Generations of Learners

**Baby  
Boomers  
1946-64**

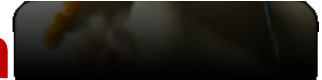
TV generation  
Typewriters  
Telephone  
Memos  
Family focus

**Generation X  
1965-80**

Video games  
PC  
Email  
CDs  
Individualist

**Net Gen  
(Digital Nati  
Millennials)  
1981-99  
(12-30 yrs old)**

Web  
Cell phone  
IM  
MP3s  
Online  
communities



2000 -

1990s

"A fascinating technological profile of a generation that will change the world." —USA Today

growing up  
digital

The Rise of the Net Generation



DON TAPSCOTT  
author of the International Bestseller  
The Digital Economy

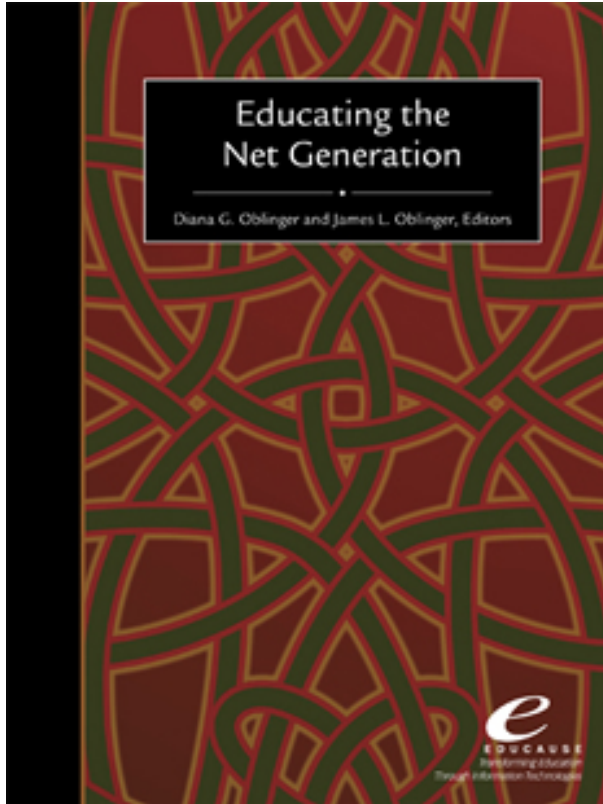
UNDERSTANDING  
THE FIRST GENERATION  
OF DIGITAL NATIVES

JOHN PALFREY and URS GASSER

DON TAPSCOTT

***Diana G. Oblinger and  
James L. Oblinger,  
Editors (2005)***

<http://www.educause.edu/educatingthenetgen>



- Aptitudes, attitudes, expectations, and learning styles of Net Gen students reflect the environment in which they were raised
- The book explores the Net Gen and the implications for institutions in areas such as teaching, service, learning space design, faculty development, and curriculum.

<http://www.netgen.unimelb.edu.au/outcomes/handbook.html>

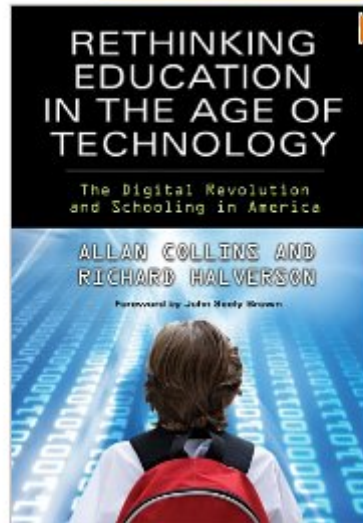




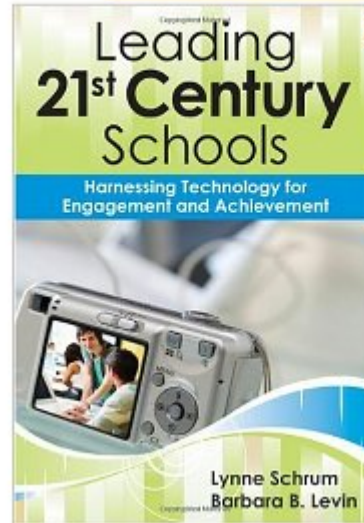
- The 1:1 environment is prompting a new learning ecology, which we describe through **four unique conditions**:
  1. Immediate and constant access to **information and a global community**;
  2. Intensity, relevance and **personalization of learning**;
  3. Highly **developed teacher capacities**; and
  4. Highly **developed student dispositions**.



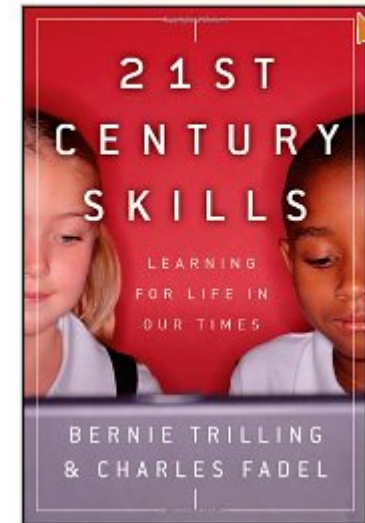
Click to **LOOK INSIDE!**



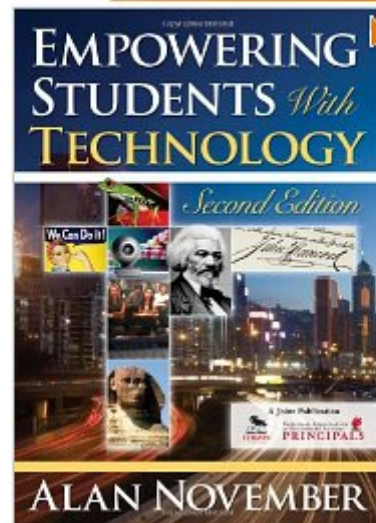
Click to **LOOK INSIDE!**



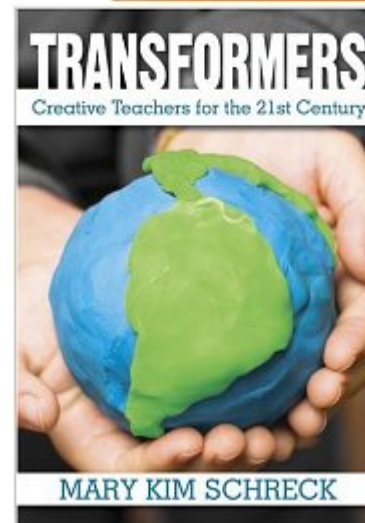
Click to **LOOK INSIDE!**



Click to **LOOK INSIDE!**



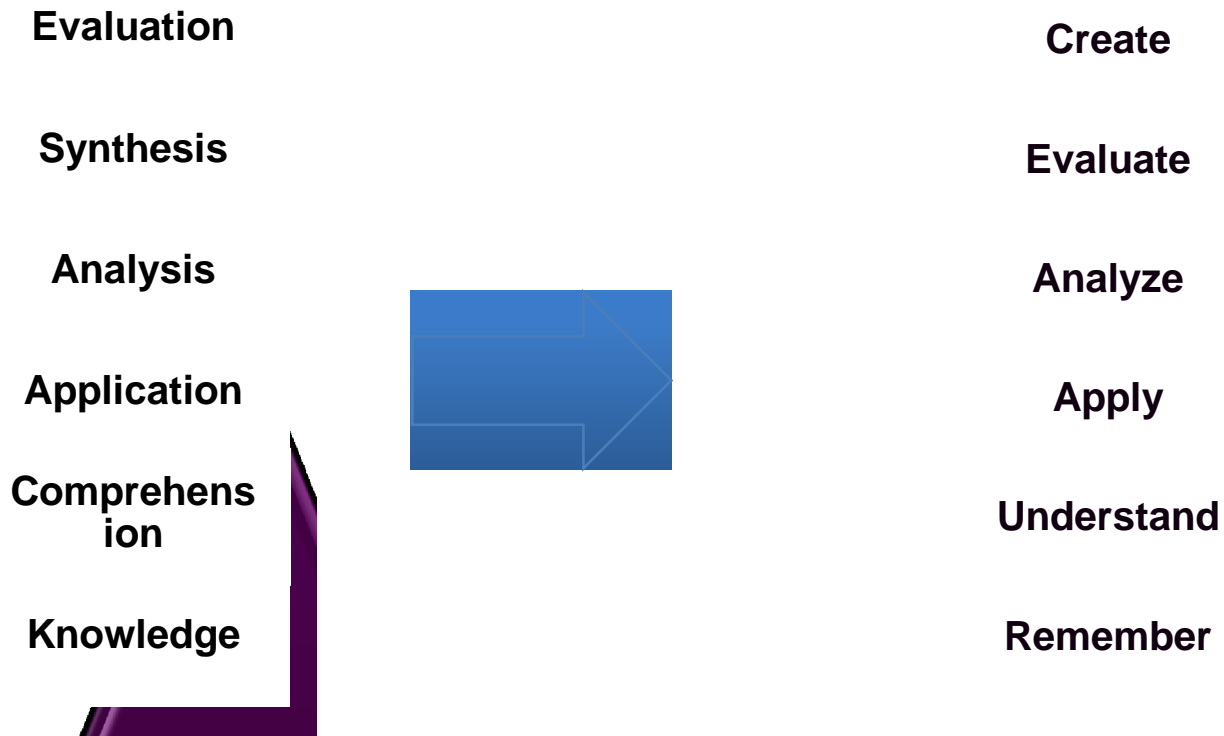
Click to **LOOK INSIDE!**





## What is Next Generation Learning?

# Bloom's Taxonomy




**1956 - Original**

# Bloom's Taxonomy Digital Pyramid

<http://www.usi.edu/distance/bdt.htm>

# Maslow's Hierarchy of Needs



Need	Offline (Maslow)	Online Communities
<b>Physiological</b>	Food, clothing, shelter, health	System access; the ability to own and maintain one's identity while participating in a web community
<b>Security &amp; Safety</b>	Protection from crimes and war; the sense of living in a fair and just society.	Protection from hacking and personal attacks; the sense of having a "level playing field"; ability to maintain varying levels of privacy
<b>Social</b>	The ability to give and receive love; the feeling of belonging to a group.	Belonging to the community as a whole, and to subgroups within the community.
<b>Self-Esteem</b>	Self-respect; the ability to earn the respect of others and contribute to society.	The ability to contribute to the community, and be recognized for those contributions.
<b>Self-Actualization</b>	The ability to develop skills and fulfill one's potential.	The ability to take on a community role that develop skills and opens up new opportunities.

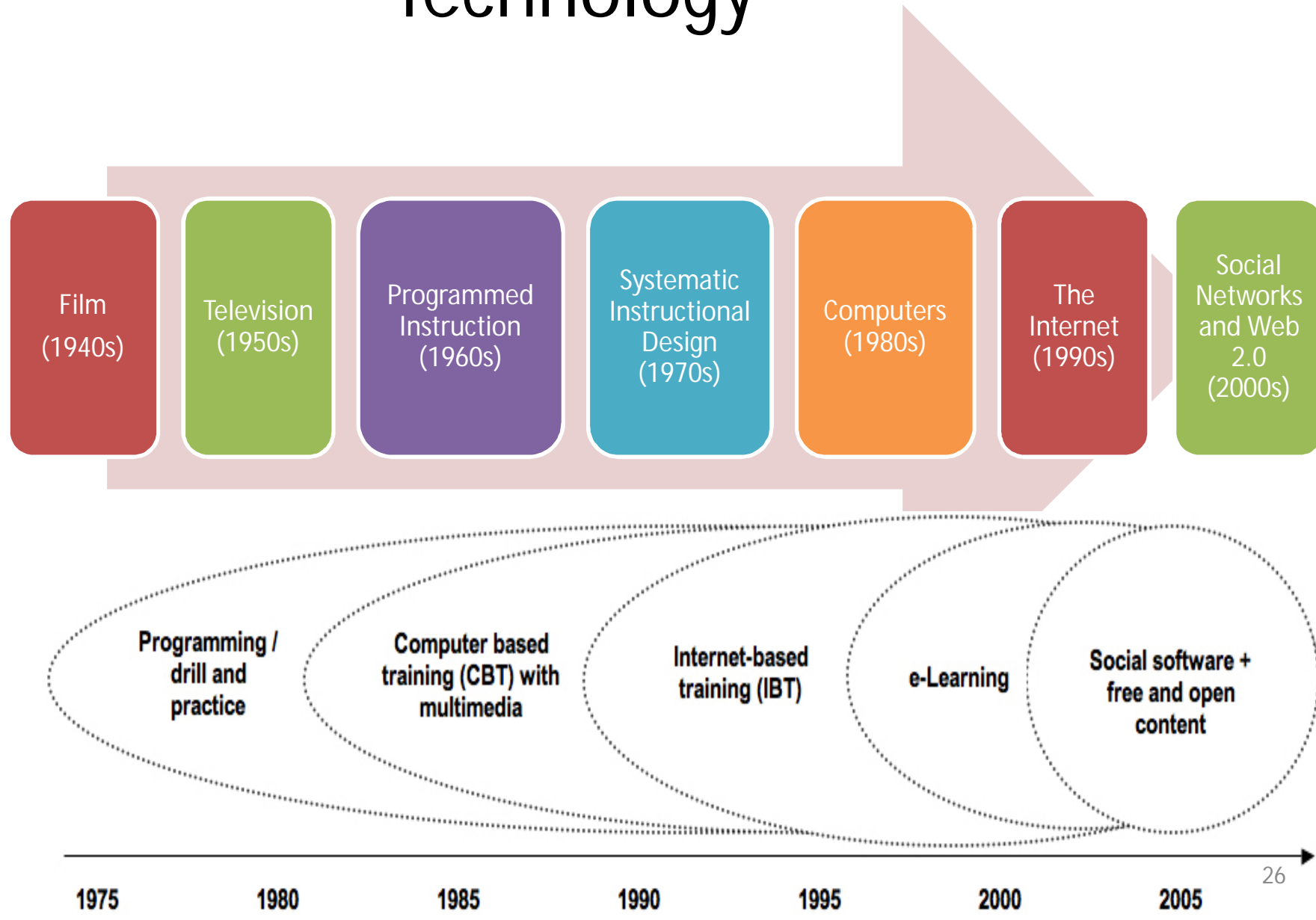
Source: Amy Jo Kim's *Community Building on the Web* (Peachpit, 2000)

<http://www.hypertext.net/wemedia/images/uploads/maslow.gif>

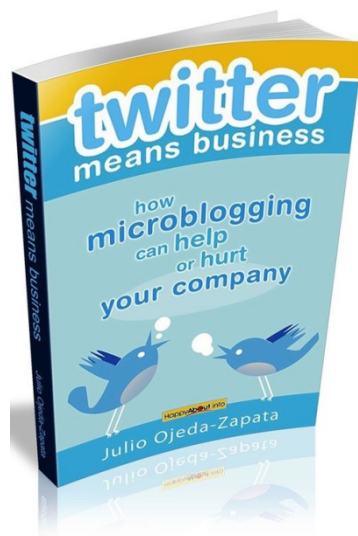


# **21<sup>ST</sup> CENTURY TOOLS & APPROACHES**

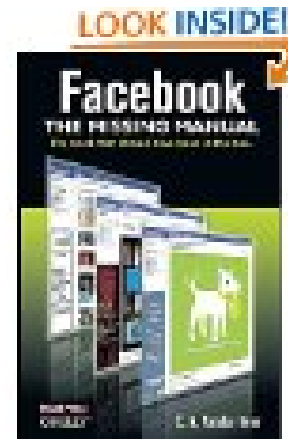
# Evolution in Educational Technology



# The tools are beyond imagination!



<http://chronicle.com/wiredcampus/article/2699/a-professors-tips-for-using-twitter-in-the-classroom>



<http://multisocialmedia.com/ttsgusp/ttsg.html>

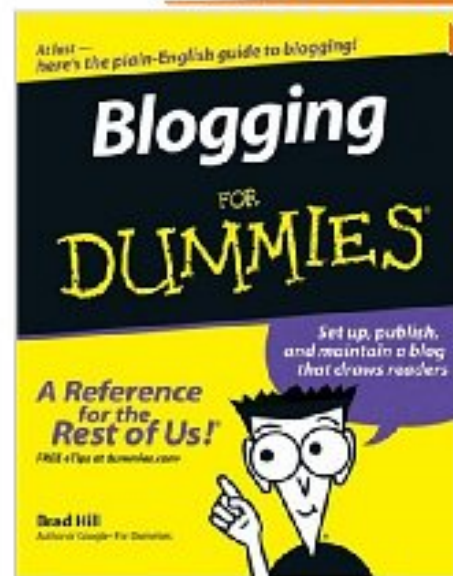
Click to **LOOK INSIDE!**



Click to **LOOK INSIDE!**

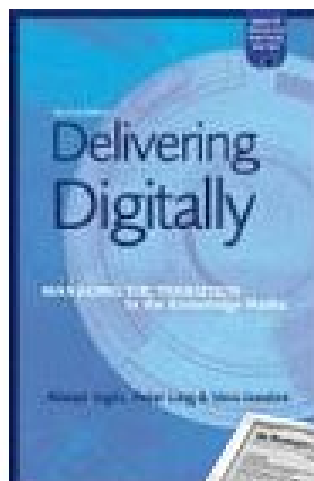


Click to **LOOK INSIDE!**

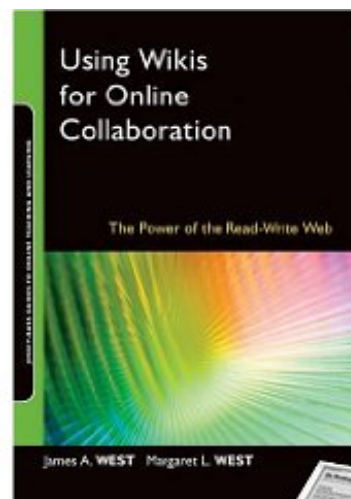


Click to **LOOK INSIDE!**

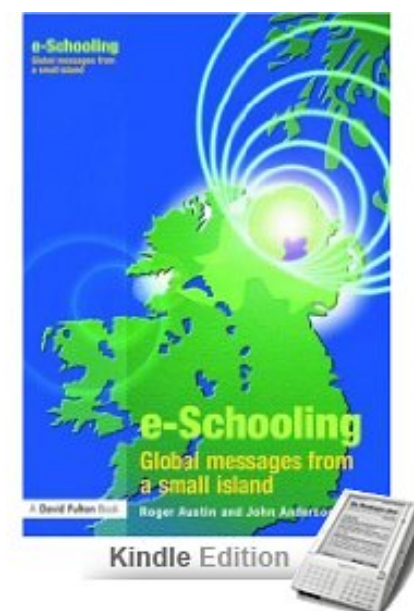
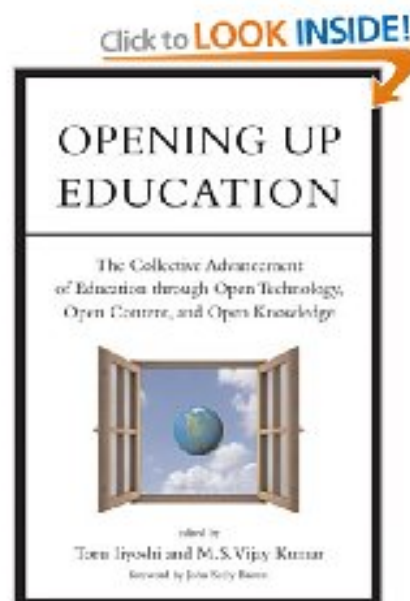
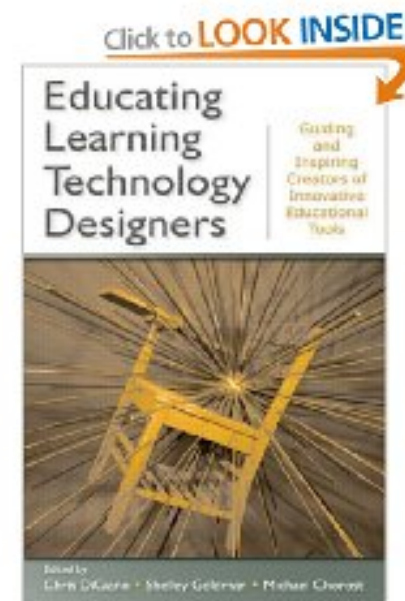




Kindle Edition



Kindle Edition

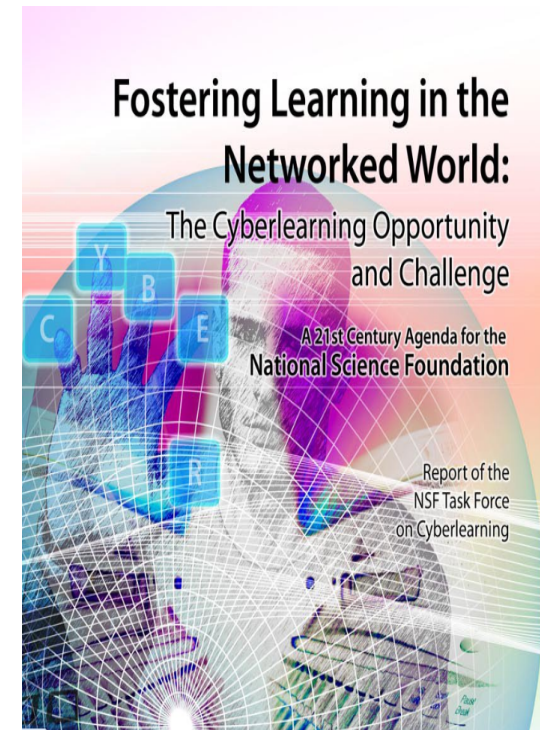


Kindle Edition



# *Fostering learning in a networked world: The cyber learning opportunity and challenge*

A 21<sup>st</sup> Century Agenda for the National Science Foundation



<http://www.nsf.gov/pubs/2008/nsf08204/nsf08204.pdf>





Photo retrieved Feb 27, 2010 from  
<http://tech.mit.edu/V121/N16/16ocw.16n.html>

Excerpt

"This is something bigger than MIT. ....we very much hope that **OpenCourseWare** will draw other universities to do the same. .... we have a world wide web of knowledge that raises the quality of learning – and ultimately, the quality of life – around the globe." (para 17)

# Birth of OCW

Announcement by MIT  
President Mr. Charles M. Vest on  
**April 4, 2001**, .....

**MIT to make nearly all course materials  
available free on the World Wide Web**

April 4, 2001

CAMBRIDGE, Mass. -- MIT President Charles M. Vest has announced that the Massachusetts Institute of Technology will make the materials for nearly all its courses freely available on the Internet over the next ten years. He made the announcement about the new program, known as [MIT OpenCourseWare \(MITOCW\)](#), at a press conference at MIT on Wednesday, April 4.

President Vest focused on how OpenCourseWare reflected the idealism of the MIT faculty and the core educational mission of MIT in his remarks to print and television reporters.

Retrieved Feb 27, 2010 from <http://web.mit.edu/newsoffice/2001/ocw.html>

Thousands of video lectures from the world's top scholars.



► Universities

▼ Subjects

- Astronomy
- Biology
- Chemistry
- Computer Science
- Economics
- Engineering
- English
- Entrepreneurship
- History
- Law

FEATURED COURSES

The American Novel Since 1945  
YALE / ENGLISH  
Amy Hungerford  
Andrew Goldstone

FEATURED LECTURES

The Nature of Persons:  
Dualism vs. Physicalism  
YALE / PHILOSOPHY  
Shelly Kagan

► Top Rated Courses

▼ Top Rated Lectures

1. Selling the Dream  
STANFORD / ENTREPRENEURSHIP  
Guy Kawasaki
2. Ideas: What Makes Them Successful?  
STANFORD / ENTREPRENEURSHIP  
Guy Kawasaki

▼ **Universities**

- Berkeley
- Harvard
- MIT
- Princeton
- Stanford
- Yale

► **Subjects**

► **Top Rated Instructors**

## FEATURED COURSES



### The American Novel Since 1945

YALE / ENGLISH

Amy Hungerford  
Andrew Goldstone



### Physics I: Classical Mechanics

MIT / PHYSICS

Walter Lewin



### General Human Anatomy

BERKELEY / BIOLOGY

Marian Diamond

## FEATURED LECTURES



### The Nature of Persons: Dualism vs. Physicalism

YALE / PHILOSOPHY

Shelly Kagan



### Private Equity and the Financial Crisis

YALE / ECONOMICS

Stephen Schwarzman



### Russia: Yesterday, Today and Tomorrow

PRINCETON / POLITICAL SCIENCE

## OUR MISSION

Academic Earth is an organization founded with the goal of giving everyone on earth access to a world class education.



Learn more about our mission.

### ▼ Top Rated Courses



1. **Introduction to Psychology**  
YALE / PSYCHOLOGY  
Paul Bloom
2. **Introduction to Astrophysics**  
YALE / ASTRONOMY  
Charles Bailyn
3. **Game Theory**  
YALE / ECONOMICS  
Benjamin Polak
4. **Financial Markets**  
YALE / ECONOMICS  
Robert Shiller
5. **The American Novel Since 1945**  
YALE / ENGLISH  
Amy Hungerford

### ▶ Top Rated Lectures

### ▶ Top Rated Playlists

### ▶ Top Rated Courses

### ▼ Top Rated Lectures



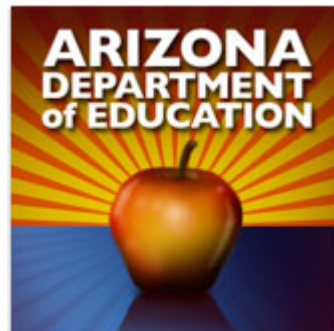
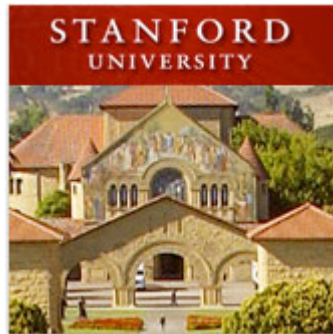
1. **Selling the Dream**  
STANFORD / ENTREPRENEURSHIP  
Guy Kawasaki
2. **Ideas: What Makes Them Successful?**  
STANFORD / ENTREPRENEURSHIP  
Guy Kawasaki
3. **Education: Importance of Peers**  
STANFORD / ENTREPRENEURSHIP  
Guy Kawasaki
4. **Collisions and the Center of Mass**  
MIT / PHYSICS  
Walter Lewin
5. **Elastic and Inelastic Collisions**  
MIT / PHYSICS  
Walter Lewin

### ▶ Top Rated Playlists



<http://www.apple.com/education/mobile-learning/>

# iTunes U





**Peer2Peer University** <http://www.p2pu.org/>  
\$70,000 seed grant from the Hewlett Foundation  
to launch its first 10 pilot courses. Opened for  
enrolment on 9-09-09

---

**Different kind of  
universities (in the  
future)**



**UNIVERSITY  
OF THE PEOPLE**

<http://www.uopeople.org/>

Computer and Business Programs



Dr. Russell S. Winer

"The University of the People is an  
idea whose time has come".





member login  
password   
☐ Remember Me [Forgot Login](#)

[Become a Member](#)

search  [Go »](#)  
[Advanced Search](#) | [Browse Subjects](#)

- ▼ HOME
- ▶ FIND
- ▶ CONTRIBUTE
- ▶ CONNECT
- ▶ PARTNERS & SPONSORS
- ▶ HELP
- ▶ ABOUT CURRIKI



**JOIN OUR MAILING LIST!**

Sign up to receive monthly curriculum updates and news from Curriki!

\* required

Email Address: \*

Subject Area:

Grade Level:

**WATCH CURRIKI GROW**

Resources: \$searchresults.totalHitscou

Home

# How can sharing help globally?

**cur-rik-i** = a web site where the community shares and collaborates on free and open source curricula

**Discover what you can do:**  
Take the [Guided Tour](#)

**Offer your expertise:**  
[Join the community](#)

**Stay in touch:**  
[Curriki's Blog](#) [in](#) [t](#) [f](#)

## Find

**Collect lesson plans, teaching activities, student worksheets and more.**

**Featured Resource:**  
 [Classroom Plants Science Kit](#)

## Contribute

**Share your favorite curriculum resources to improve education globally.**

**Recently Reviewed:**  
 [Tuck Everlasting Novel Study](#)

## Connect

**Collaborate with teachers in your school, or educators around the world.**

**Featured Group:**  
 [Hot Topics in Educational Technology](#)

## FOCUS ON CORE SUBJECTS



[Language Arts](#)



[Mathematics](#)



[Science](#)



[Social Studies](#)

# Global Target

# Online collaboration & teamwork tools by



Groove & SharePoint come with a price!



Microsoft and Groove Networks  
Combine Forces  
to Create  
Anytime, Anywhere Collaboration

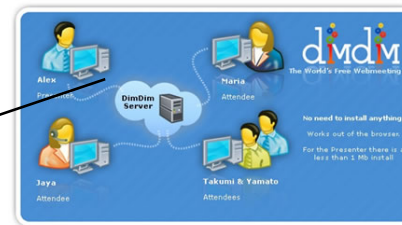


Groove

# Wide array of online collaboration tools with amazing features...



DimDim

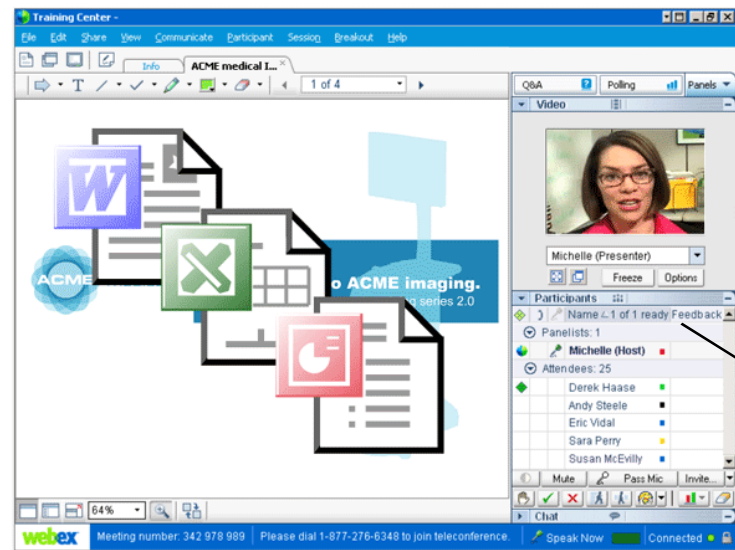


Eluminate

Adobe  
Connect Pro



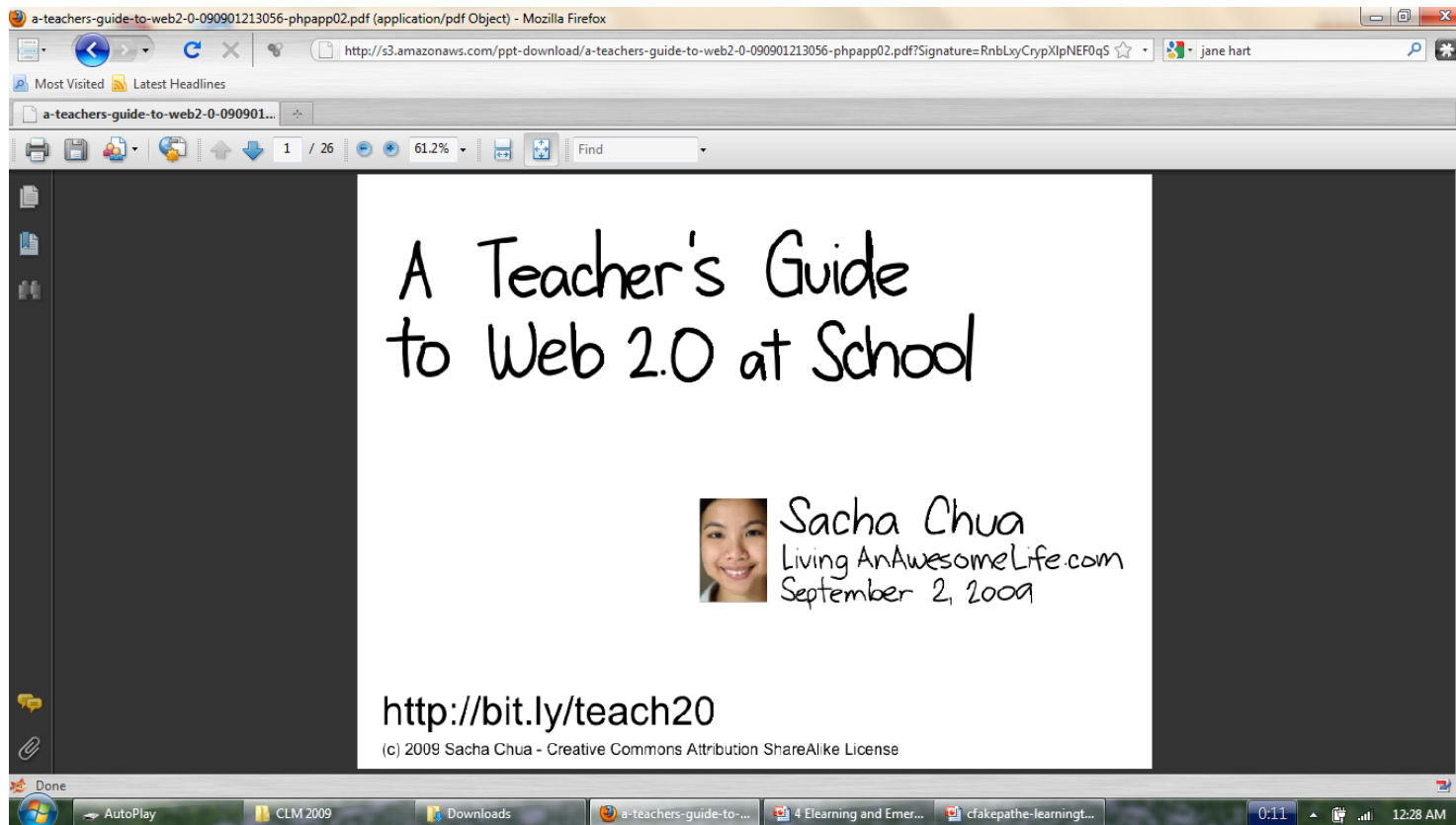
Centra



WebEx

# A Teachers' Guide to Web 2.0 at School

A-teachers-guide-to-web-2.0



# **BLENDED LEARNING: WHAT, WHY, WHERE, WHEN & HOW?**

*"We, as a species, are blended learners."*



*Elliot Masie*



**Memorizing information**  
is now much  
**less important than**  
**knowing**  
**how to access**  
**information.**

Elliot Masie calls this  
**"fingertip knowledge"**.

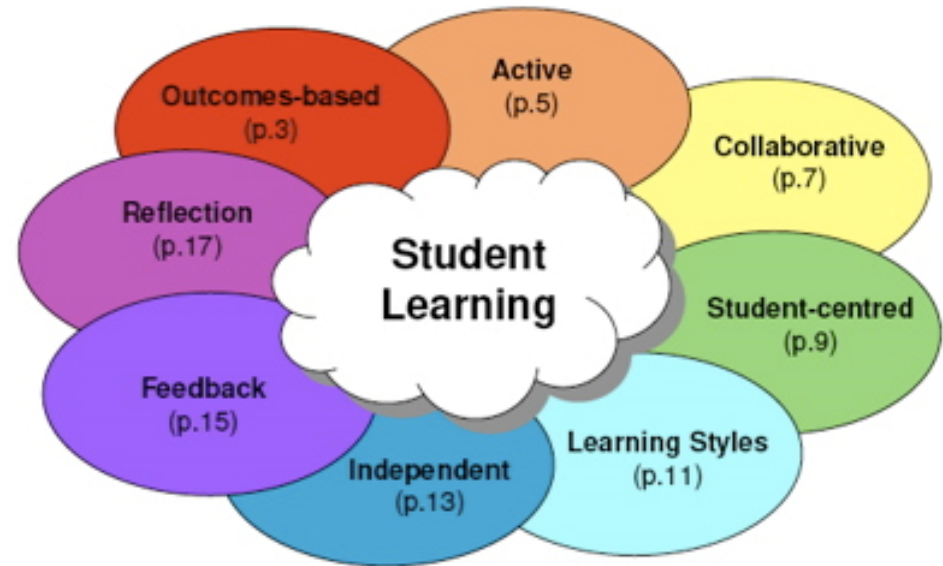


# What is blended learning?



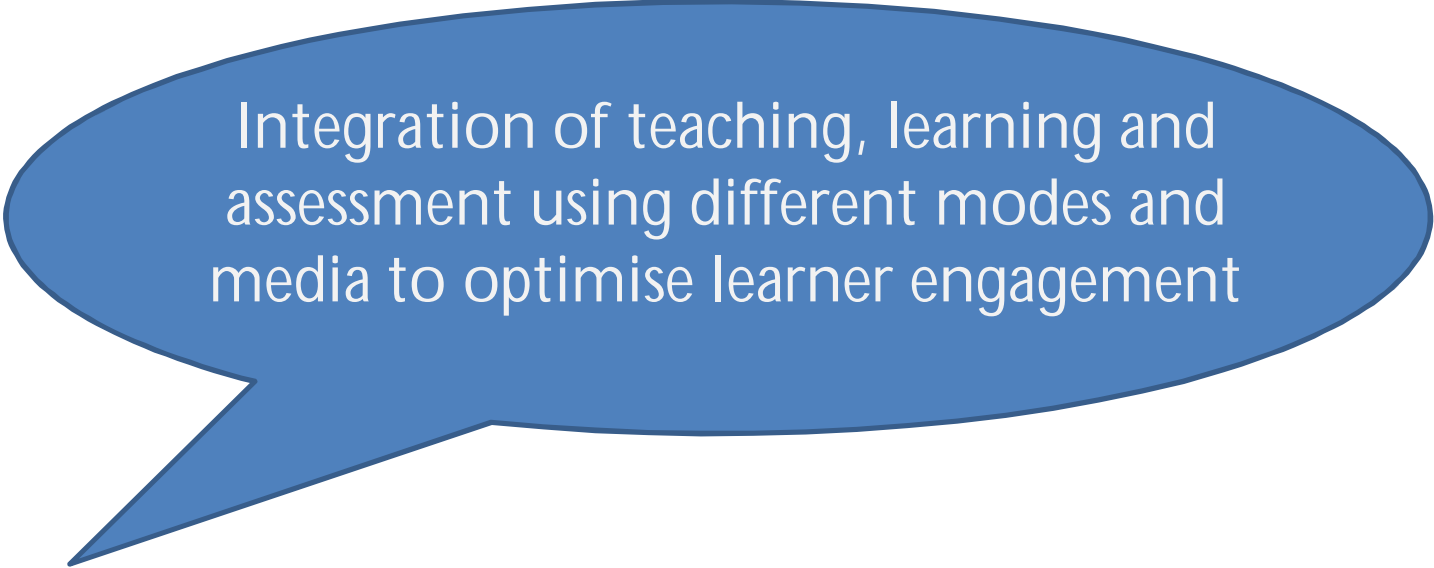
**e-TQM College Blended Learning Approach**

Source:  
<http://mrwilliamsmaths.files.wordpress.com/2009/12/blendedlearning.jpg>



Source:  
<http://e4innovation.com/?p=181>

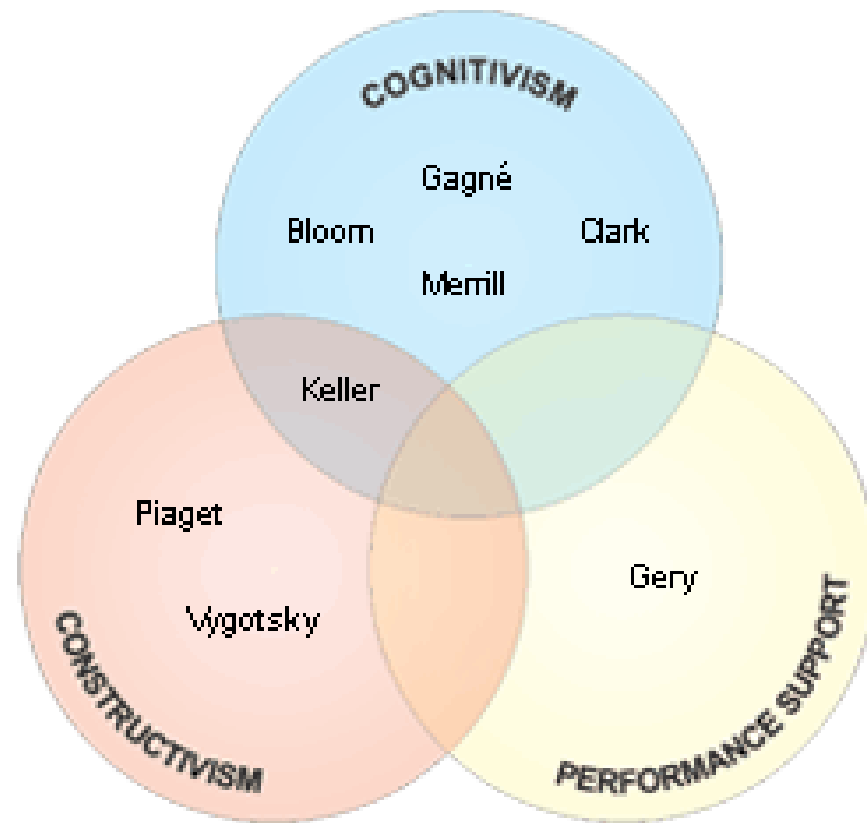
# Definition



Integration of teaching, learning and assessment using different modes and media to optimise learner engagement

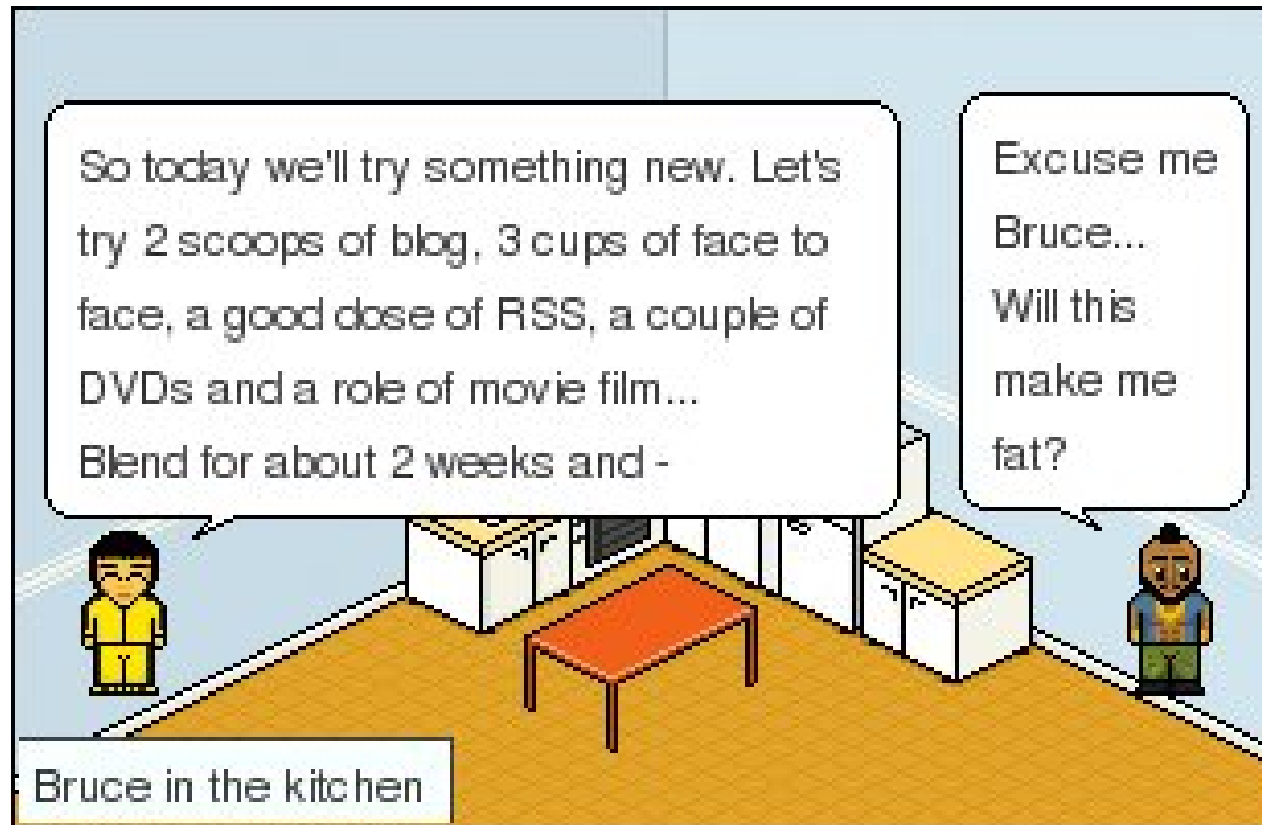
# Blended Learning Models

## Blended Learning Theories



[www.agilantlearning.com/instructionaldesign.html](http://www.agilantlearning.com/instructionaldesign.html)

# What is a good blend?



<http://blendedlearning.wikispaces.com/Setting+up+for+blended+learning>

# Learning Styles

VAK

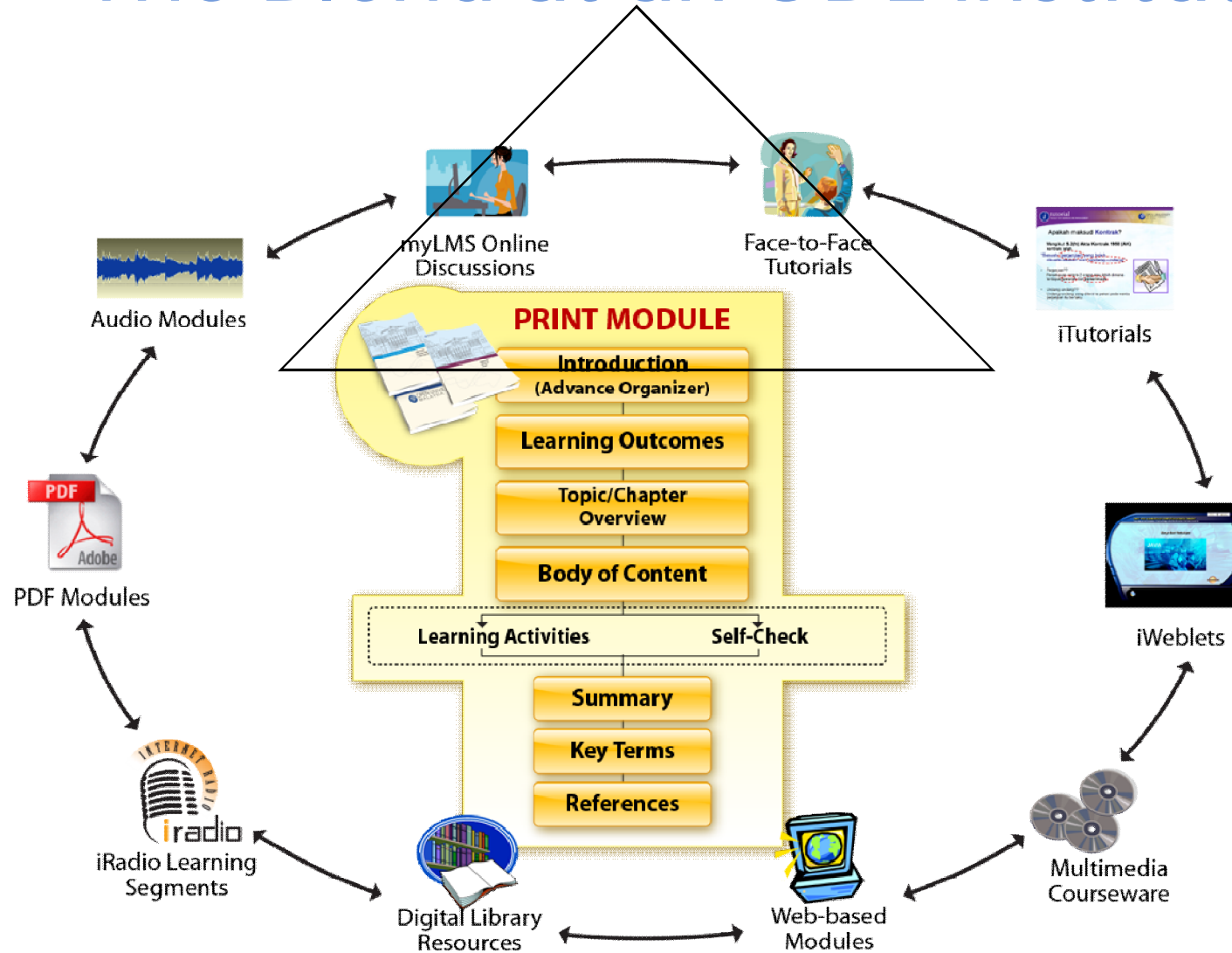
VARK

Felder-Solomon





# The Blend at an ODL institution



# Learning Styles

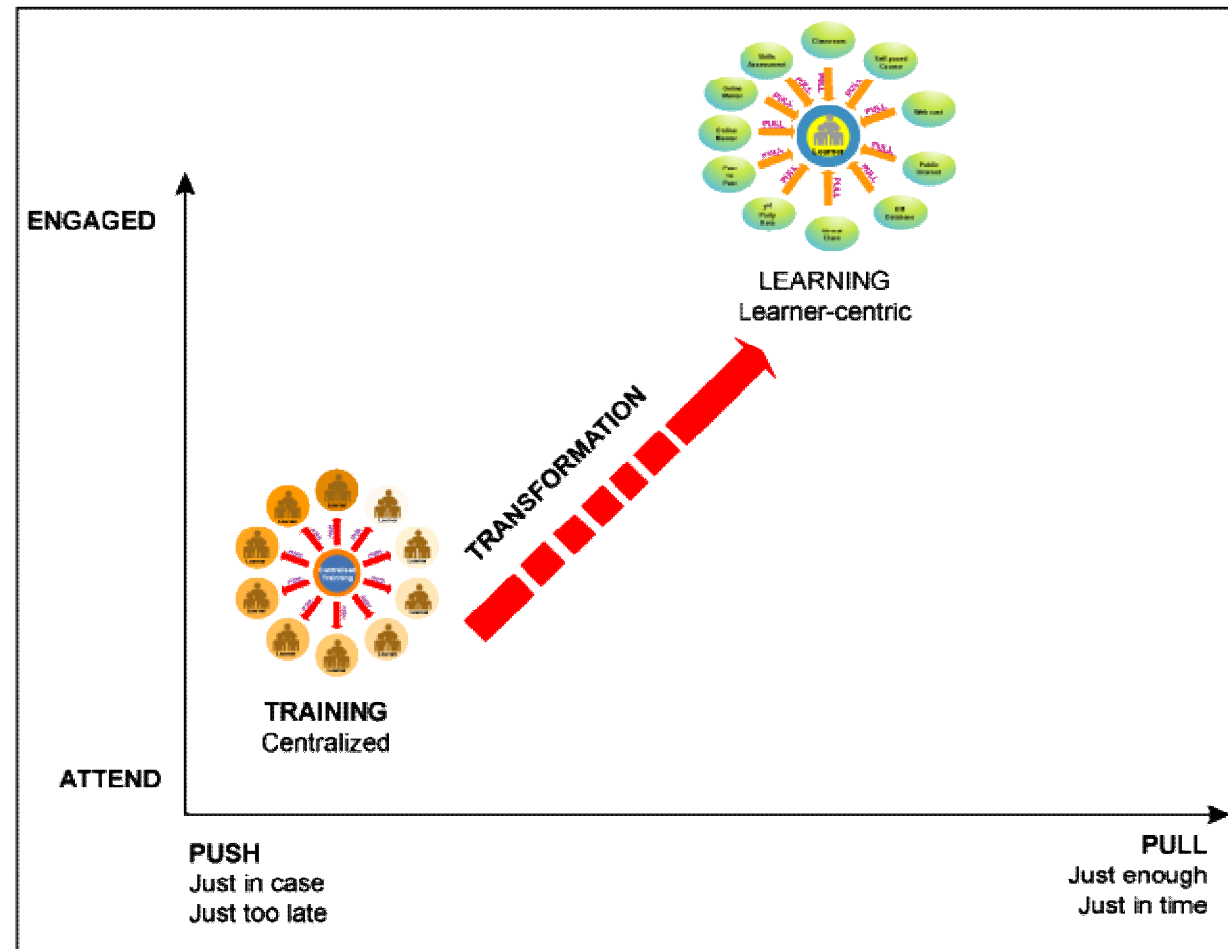
VAK

VARK

Felder-Solomon



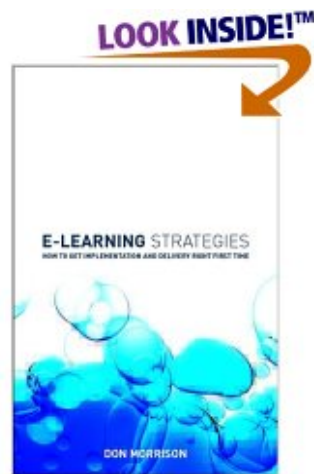
# Transform Learning from Push to Pull



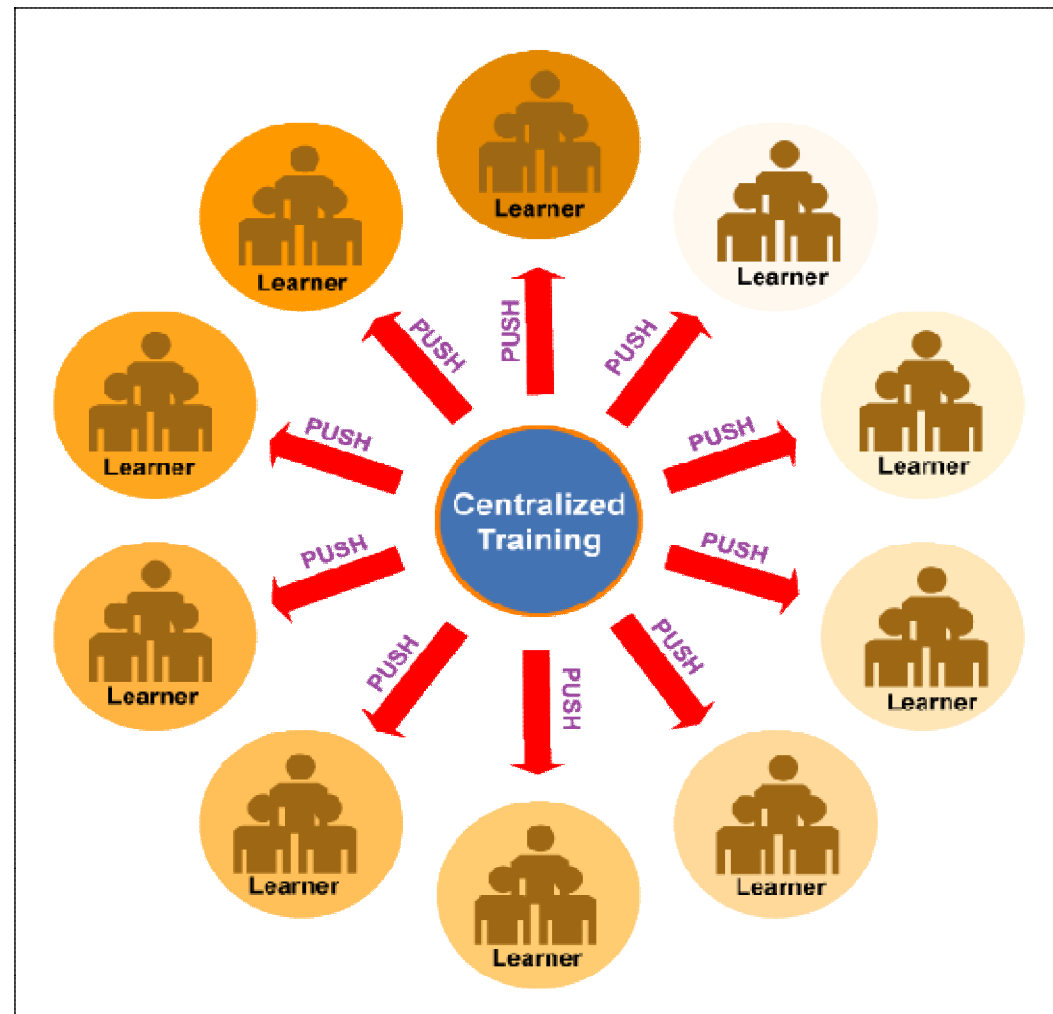
Adapted from:  
Morrison(2003): *E-Learning  
strategies: How to get  
implementation and delivery  
right the first time.*  
Hoboken, NJ: John Wiley

Push model to pull model

# Centralised Learning

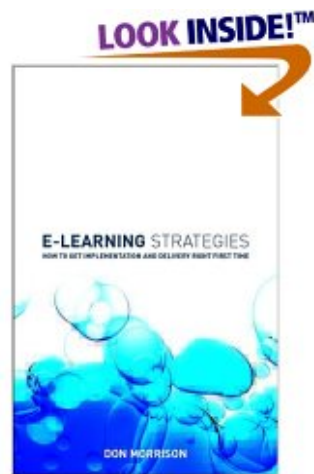


Adapted from:  
Morrison(2003). *E-Learning strategies: How to get implementation and delivery right the first time*. Hoboken, NJ: John Wiley



Push model of learning

# Learner-Centric Learning



Adapted from:  
Morrison(2003). *E-Learning strategies: How to get implementation and delivery right the first time*. Hoboken, NJ: John Wiley



Pull model of learning

# Use of Social Learning Platforms

 Create a Ning Network!

Zoraini Wati AbasSign OutSearch HMID 6303

## HMID 6303

Current Trends and Issues in Instructional Technology

HomeInviteMy PageMembersPhotosVideosNotesForumPollOpinionMember MapManage

### Notes

Edit

**All PowerPoint Assignment 1 of HMID 6303**  
Created by Ravichandran Feb 15, 2010 at 6:25pm. Last updated by Ravichandran Mar 18.

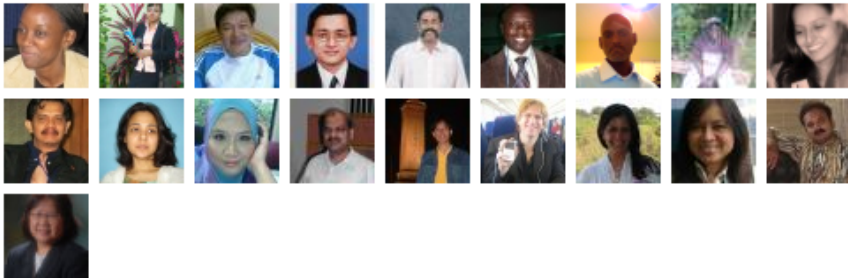
**Asgmt 2: Content Outline**  
Created by Fitri Mar 18, 2010 at 9:44am. Last updated by Fitri Mar 18.

**Course Outline**  
Created by Zoraini Wati Abas Jan 10, 2010 at 8:57pm. Last updated by Zoraini Wati Abas Jan 12.

+ Add a NoteView All

### Members

Edit



+ Invite MoreView All

### Welcome

Edit


**Greetings and welcome** to the course on **Current Trends and Issues in Instructional Technology**.


Dr. Ravi, Ms Fitri and I are looking forward to being your facilitators. We hope this will be an enjoyable course for you. It will provide you opportunities to explore current trends and realise some of the key issues.


The entire course outline is in the Notes section of this Web site. Please note that the assignment descriptions may be refined as we go along, but we will lock this in by


### Zoraini Wati Abas


Sign Out


 Inbox (3 new)

 Alerts

 Friends - Invite

 Settings

Quick Add...


**Ads by Google**

**Seeking Accounting Jobs?**  
Browse All Accounting Jobs By Area or Post Your Resume/Job Ads Free !  
[MySimplifieds.Com/Account](http://MySimplifieds.Com/Account)

**Beautiful Burma**  
Home of the Golden Smile The New Asian Destination  
[www.tamarindtravel.com](http://www.tamarindtravel.com)

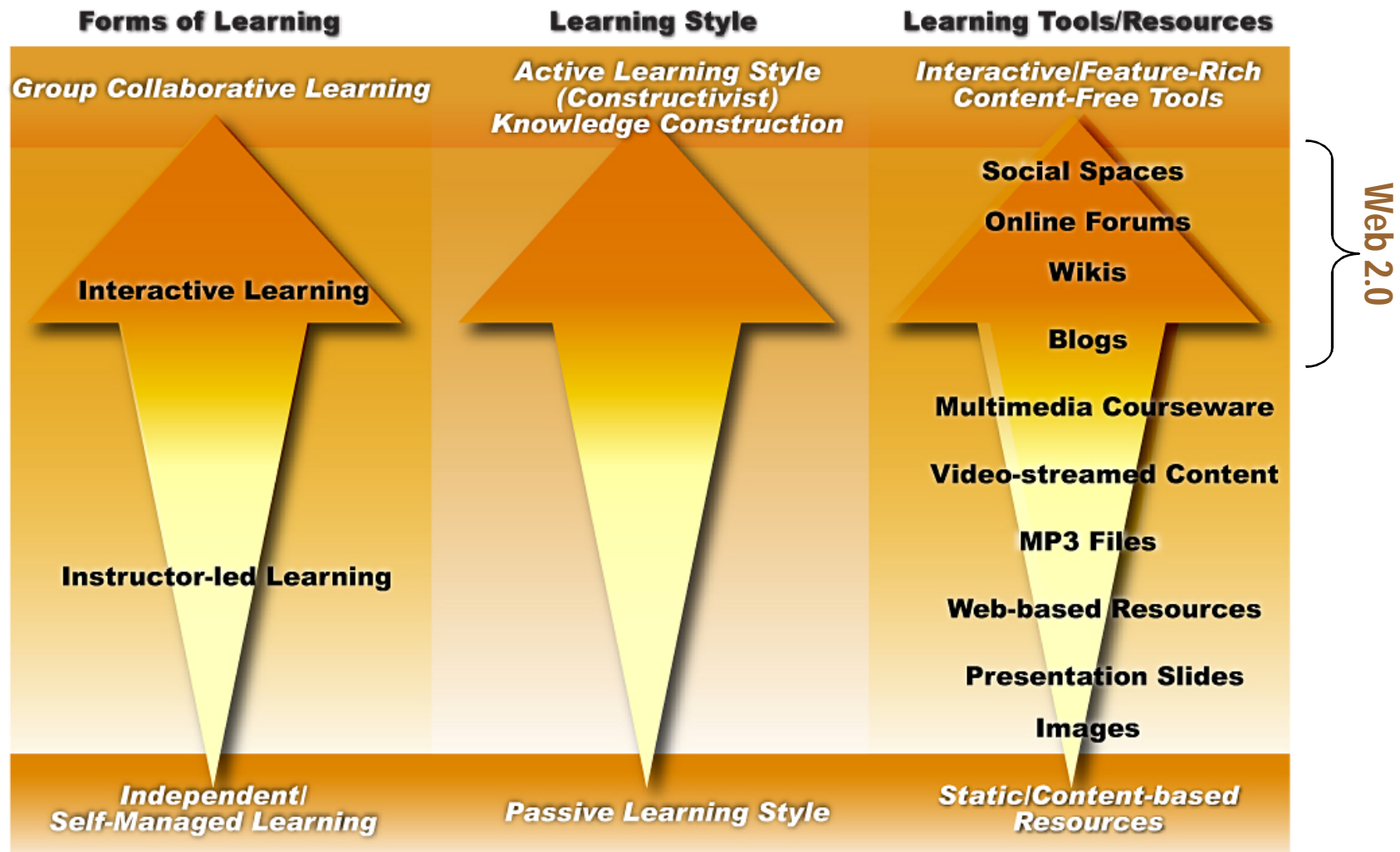
### Videos

Edit





# Learning Matrix (Form, Style, Tool)



©Abas, 2007



Using Web 2.0 Tools Anytime. **Anywhere.**



# **THE WAY FORWARD**



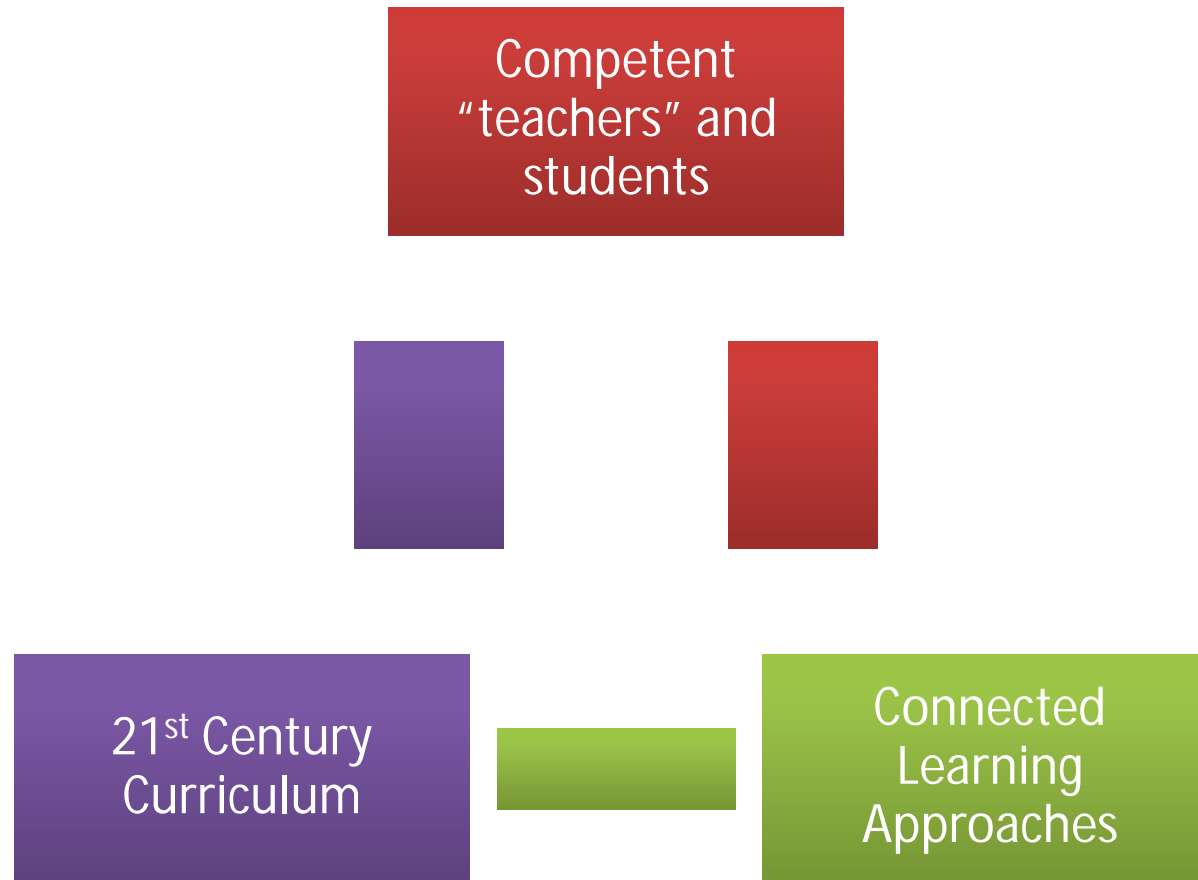
<http://yunyun-expressiveart.blogspot.com/>

<http://yunyun-creativearteducation.blogspot.com/>

## **Making Art Lessons Come Alive (5:55)**

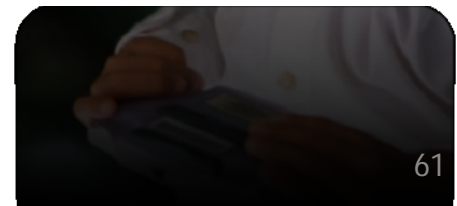
<http://www.youtube.com/watch?v=BO9rqJD1GXo>

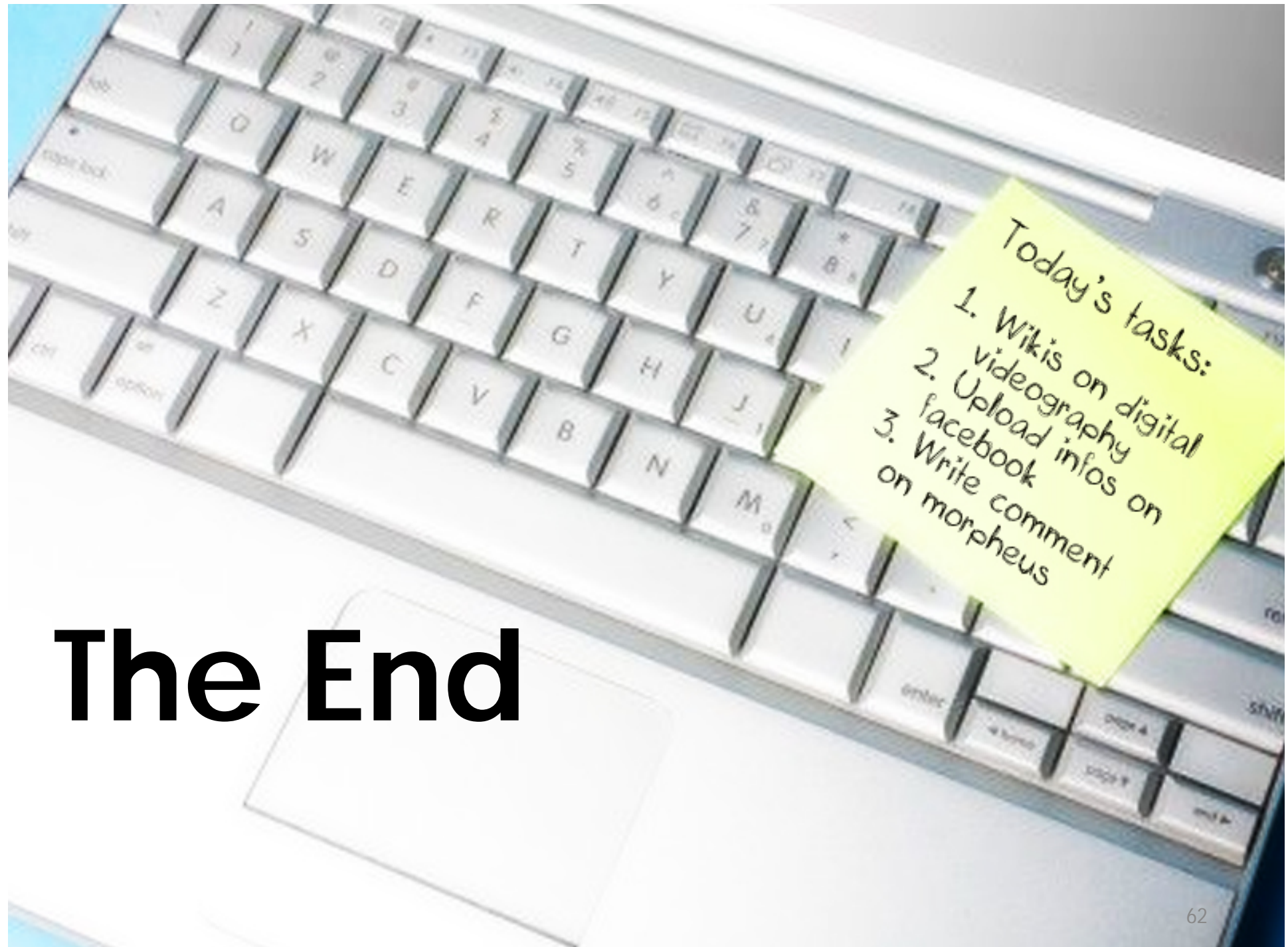
# FRAMEWORK FOR 21<sup>ST</sup> CENTURY EDUCATION





What are you willing to do for  
your students today?





**The End**

Thank you for your attention



## On the web:

[zoraini@oum.edu.my](mailto:zoraini@oum.edu.my)

[zoraini@gmail.com](mailto:zoraini@gmail.com)

[http://www.facebook.com/  
zoraini](http://www.facebook.com/zoraini)

<http://eyeonlearning.blogspot.com/>

[http://research-  
zwa.blogspot.com/](http://research-zwa.blogspot.com/)

Skype: zoraini